1st Identification of the Substance/preparation and of the company / manufacturer

*Product-name:*

Dynacord - Dynacord hart; Dynacord 5; Dynacord 12; Dynacord 20; Dynacord 40; Dynacord 80; Dynacord 100;

DYNACORD S- DYNACORD 12 S; DYNACORD 20 S; DYNACORD 24 S; DYNACORD 40 S; DYNACORD 60 S; DYNACORD 80 S; DYNACORD 100 S; DYNACORD 150 S

Supercord - Supercord 12; Supercord 12 hart; Supercord 20; Supercord 20 hart; Supercord 40; Supercord 40 t; Supercord 40R; Supercord 100; Supercord 100 t

Cordtex - Cordtex 3; Cordtex 5; Cordtex 5S; Cordtex 10N: Cordtex 12; Cordtex 12N; Cordtex 20; Cordtex 20N; Cordtex 24S; Cordtex 40N; Cordtex 40S; Cordtex 40T; Cordtex 80N; Cordtex 100N; Cordtex 100T; Cordtex B Line

NOBELCORD - NOBELCORD 10; NOBELCORD 12; NOBELCORD 20; NOBELCORD 40; NOBELCORD 80; NOBELCORD 100

*Usage:*

Detonating cord as a brisance detonating agent for initiating commercial explosives or as an explosive.

*Manufacturer/Supplier:*

ORICA Germany GmbH
Mülheimer Strasse 5
D- 53840 TROISDORF

Phone : +49 (0) 2241 / 4829-1019
Fax : +49 (0) 2241 / 4829-1697
E-Mail : orica-germany@orica.com
Emergency phone number : +49 (0) 2736 / 448-0
2nd Composition / information on ingredients

**Description:**
Detonating cord, consisting of an explosive core of PETN (Pentaerythritol tetranitrate), sheathed with a plastic foil and a braided spun layer of nylon threads; outside covered with a PVC layer.

<table>
<thead>
<tr>
<th>Detonating Cord</th>
<th>Weight specification PETN</th>
<th>Total weight</th>
<th>Detonating Cord</th>
<th>Weight specification PETN</th>
<th>Total weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynacord hart</td>
<td>12 g/m</td>
<td>ca. 24 g/m</td>
<td>Cordtex 5S</td>
<td>5 g/m</td>
<td>ca. 15 g/m</td>
</tr>
<tr>
<td>Dynacord 5</td>
<td>5 g/m</td>
<td>ca. 15 g/m</td>
<td>Cordtex 10N</td>
<td>10 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 12</td>
<td>12 g/m</td>
<td>ca. 24 g/m</td>
<td>Cordtex 12</td>
<td>12 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 20</td>
<td>20 g/m</td>
<td>ca. 36 g/m</td>
<td>Cordtex 12N</td>
<td>12 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 40</td>
<td>40 g/m</td>
<td>ca. 71 g/m</td>
<td>Cordtex 20</td>
<td>20 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 80</td>
<td>80 g/m</td>
<td></td>
<td>Cordtex 20N</td>
<td>20 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 100</td>
<td>100 g/m</td>
<td>ca. 138 g/m</td>
<td>Cordtex 24S</td>
<td>24 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 12 S</td>
<td>12 g/m</td>
<td></td>
<td>Cordtex 40N</td>
<td>40 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 20 S</td>
<td>20 g/m</td>
<td></td>
<td>Cordtex 40S</td>
<td>40 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 24 S</td>
<td>24 g/m</td>
<td></td>
<td>Cordtex 40T</td>
<td>40 g/m</td>
<td>ca. 71 g/m</td>
</tr>
<tr>
<td>Dynacord 40 S</td>
<td>40 g/m</td>
<td></td>
<td>Cordtex 80N</td>
<td>80 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 60 S</td>
<td>60 g/m</td>
<td></td>
<td>Cordtex 100T</td>
<td>100 g/m</td>
<td>ca. 138 g/m</td>
</tr>
<tr>
<td>Dynacord 80 S</td>
<td>80 g/m</td>
<td></td>
<td>Cordtex 100N</td>
<td>100 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 100 S</td>
<td>100 g/m</td>
<td></td>
<td>Cordtex B’Line</td>
<td>5 g/m</td>
<td></td>
</tr>
<tr>
<td>Dynacord 150 S</td>
<td>150 g/m</td>
<td></td>
<td>Nobelcord 10</td>
<td>10 g/m</td>
<td></td>
</tr>
<tr>
<td>Supercord 12</td>
<td>12 g/m</td>
<td>ca. 24 g/m</td>
<td>Nobelcord 12</td>
<td>12 g/m</td>
<td></td>
</tr>
<tr>
<td>Supercord 12 hart</td>
<td>12 g/m</td>
<td>ca. 24 g/m</td>
<td>Nobelcord 20</td>
<td>20 g/m</td>
<td></td>
</tr>
<tr>
<td>Supercord 20</td>
<td>20 g/m</td>
<td>ca. 36 g/m</td>
<td>Nobelcord 40</td>
<td>40 g/m</td>
<td></td>
</tr>
<tr>
<td>Supercord 20 hart</td>
<td>20 g/m</td>
<td>ca. 36 g/m</td>
<td>Nobelcord 80</td>
<td>80 g/m</td>
<td></td>
</tr>
<tr>
<td>Supercord 40</td>
<td>40 g/m</td>
<td>ca. 71 g/m</td>
<td>Nobelcord 100</td>
<td>100 g/m</td>
<td></td>
</tr>
<tr>
<td>Supercord 40 t</td>
<td>40 g/m</td>
<td>ca. 71 g/m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supercord 40R</td>
<td>40 g/m</td>
<td>ca. 71 g/m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supercord 100</td>
<td>100 g/m</td>
<td>ca. 138 g/m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supercord 100 t</td>
<td>100 g/m</td>
<td>ca. 138 g/m</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Detonating cord, consisting of an explosive core of PETN (Pentaerythritol tetranitrate), sheathed with a plastic foil and a braided spun layer of nylon threads; outside covered with a PE layer.

<table>
<thead>
<tr>
<th>Detonating Cord</th>
<th>Weight specification PETN</th>
<th>Total weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cordtex 3</td>
<td>4 g/m</td>
<td></td>
</tr>
<tr>
<td>Cordtex 5</td>
<td>5 g/m</td>
<td></td>
</tr>
</tbody>
</table>

Mass explosion hazard.

**Dangerous contents:**

<table>
<thead>
<tr>
<th>PETN</th>
<th>CAS No.</th>
<th>Code letters of danger symbol</th>
<th>R phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETN</td>
<td>78-11-5</td>
<td>E</td>
<td>3</td>
</tr>
</tbody>
</table>
3rd Hazards identification

Possible dangers:
Fire, heat, electrostatic or mechanical effects may cause the articles to explode. With proper use and handling there is no health hazard. The intact detonating cord are also not hazardous to health. Mass explosion hazard.

4th First aid measures

General references:
In case of unintentional ignition usual first aid measures are to be applied for bruises, wounds and combustion
Dexamethason-spray should be inhaled, if symptoms (irritation of respiration tract) are directly related to the inhalation of combustion fumes.

5th Fire-fighting measures

Measures in case of fire:
Always: Keep unauthorised persons away. Warn neighbourhood announcing risk of explosion.
Fire has not yet reached product: Fight adjacent fire with all available means (water, extinguishing powder etc.). Prevent fire from reaching product. Remove explosive articles from danger zone if possible. Drive vehicle away from fire zone.
Fire has just reached the product or is about to reach it: Do not try to extinguish, due to risk of explosion. Take cover in a distance of at least 300 m.

6th Accidental release measures

People-related measures:
Secure vicinity, keep road users and unauthorised persons away and inform them about risk of explosion.

Cleaning:
Scattered load is to be removed manually only, do not use any tools.
7th Handling and storage

Handling

Information for safe handling: Avoid mechanical influences (e.g. impact, crushing). Keep away from heat sources and naked flames.

Appliance requirements: Do not use spark-producing tools.

Fire and explosion protection information: Do not smoke. Keep away from ignition sources and open fire. Take measures to avoid electrostatic charges. Avoid mechanical influences (e.g. impact, crushing).

Storage:

Storage conditions and instructions: Storage and holding at disposal only in approved buildings and in quantities according to the specific national regulations for articles containing explosives (Germany: BGV B 5 (VBG 55a). Also see German second regulation to Explosives Law (2. SprengV) and Explosives Storage Guidelines.

Storage class / storage group: 1.1 D

8th Exposure controls / personal protection

Personal protective equipment

Eye protection: Protective goggles (framed).

Industrial hygiene: Do not eat, drink, smoke when working. Keep away from food, drinks and animal feed.

9th Physical and chemical properties

See point 2.

10th Stability and Reactivity

Possible risks: Fire, heat, electrostatic or mechanical effects may cause the detonators to explode. Mass explosion hazard.

11th Toxicological information

With proper use and handling there is no health hazard. The intact detonators are also not hazardous to health.

12th Ecological information

If handled and used appropriately adverse effects on ecosystems are unlikely.
13th Disposal considerations

**Recommended methods for disposal:**

Disposal or destruction of explosives and detonators must be carried out in accordance with national regulations for handling / disposal of explosives.

German regulation: Work must be carried out according to BGV C 24 (VBG 46) “Sprengarbeiten” (blasting practice).

Also to be applied: German BG Chemie guideline no. BGR 114 (ZH1/47) resp. BGV 5 (VBG 55a).

14th Transport information

<table>
<thead>
<tr>
<th>ADR / RID – class</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification code</td>
<td>1.1 D</td>
</tr>
<tr>
<td>UN-no.</td>
<td>0065</td>
</tr>
<tr>
<td>Packing method</td>
<td>P 139, PP71, PP72</td>
</tr>
<tr>
<td>Proper shipping name</td>
<td>CORD, DETONATING</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG / GGVSee - class</th>
<th>1.1 D</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-no.</td>
<td>0065</td>
</tr>
<tr>
<td>EMS-no.</td>
<td>F-B, S-X</td>
</tr>
</tbody>
</table>

**Remarks**

- mass explosion hazard

15th Regulations

According to directive 1999/45/EC of the Council for the Harmonisation of Legal and Administrative Regulations for the Classification, Packaging and Labelling of dangerous preparations, an identification of articles with explosives in accordance with international transport regulations is sufficient.

**Identification**

Cf. Chapter 14 in this regard.

**German National Regulations**

Subject to German "Gefahrstoffverordnung" (Hazardous Substances Regulation)

Subject to German "Sprengstoffgesetz" (Explosives law).

Subject to regulations of the "Berufsgenossenschaft" (Chemical Professional Association).

Approval conditions must be respected.

16th Other information

Handling of explosives and explosive articles should only be allowed to qualified persons and in accordance with the specific national regulations.

**Technical contact point**

Dr. Jens Schlirf
Telephone number +49 (0) 2736 / 448-3013
This Safety Data Sheet is handed only in the form of a machine-written original document, any copies are not authorized.
The information contained is based on the present state of our knowledge.
It characterizes the product with regard to the appropriate safety precautions, but does not represent any guarantee with regard to product properties fixed by contract.
As being machine-written this Safety Data Sheet is not signed.